WHAT IS CLAIMED IS:

1. A televising microscope, comprising a base, a supporting arm pivotally fixed about a rotation axis orthogonal to the base, a sample-mounting plate, microscopic object optics, and illuminating optics attached respectively to the supporting arm, and a wireless televising camera unit located in an imaging position in the microscopic object optics.

2. A televising microscope according to claim 1, wherein the base can be altered in relative position to the rotation axis so as to be horizontal and non-horizontal.

3. A televising microscope according to claim 1, wherein when the supporting arm rotates about the rotation axis, the sample-mounting plate does not rotate while the microscopic object optics and the illuminating optics rotate along with the supporting arm.

4. A televising microscope according to claim 1, wherein the televising microscope has ocular optics substituted for the wireless televising camera unit.

5. A televising microscope according to claim 1, wherein the wireless televising camera unit has a CMOS image sensor.

6. A televising microscope according to claim 1, wherein the wireless televising camera unit has a CCD image sensor.

7. A televising microscope, comprising a base, a supporting arm pivotally fixed about a rotation axis orthogonal to the base, a sample-mounting plate attached to the base, microscopic object optics and illuminating optics attached respectively to the supporting arm, and a wireless televising camera unit located in an imaging position in the microscopic object optics.

8. A televising microscope, comprising a base, a supporting arm pivotally fixed about a rotation axis orthogonal to the base, a sample-mounting plate,

microscopic object optics, and illuminating optics attached respectively to the supporting arm, a wireless televising camera unit located in an imaging position in the microscopic object optics, and a display device.

9. A televising microscopic system, comprising a base, a supporting arm pivotally fixed about a rotation axis orthogonal to the base, a sample-mounting plate attached to the base, microscopic object optics and illuminating optics attached respectively to the supporting arm, a wireless televising camera unit located in an imaging position in the microscopic object optics, and a display device.

10. A televising camera apparatus, comprising an object lens barrel holding an object lens, a camera housing detachably fixed to the object lens barrel, a light receiving element located in an imaging position in relation with the object lens within the camera housing, a television radio generator converting and transmitting wireless image signals produced by the light receiving element, and a display device receiving the image signals from the television radio generator and representing images based upon the image signals.